

REMARKS

At the time of examination, the Official Action included Claims 1-3. Of these, Claims 1 and 2 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,031,489 to Alfred Young, et al., while Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Young '489 patent in view of Applicants' admitted prior art. Independent Claim 1 has now been amended to include the recitations previously set forth by dependent Claim 2 in order to further patentably distinguish the claimed invention from the cited references. As such dependent Claim 2 has now been canceled. Additionally, new independent Claims 9 and 15 have been introduced as well as new dependent Claims 4-8, 10-14 and 16-21 in order to define other patentable aspects of the fastener insertion device of the present invention. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration of the present application and the allowance of the current set of claims.

Independent Claim 1 is directed to a fastener insertion device that includes a supply of fasteners, a tube defining an opening that is larger than the fastener and an air flow generator to create air flow through the tube and toward the workpiece such that when the tube is aligned with the hole defined by the workpiece and the fastener is placed in the tube, the air will carry the fastener and insert the fastener into the hole defined by the workpiece. As now amended, independent Claim 1 further recites that the tube defines openings about a circumferential surface of the tube to prevent the fastener from inhibiting the air flow when the fastener is placed in the tube. Notably, the openings that are defined by the tube are about the circumferential surface of the tube, that is, the sidewalls of the tube and are not the openings defined by the opposed ends of the tube into which a fastener is inserted and from which a fastener is ejected. For example, Figure 5 illustrates airflow in a direction extending both radially into and axially along the passageway defined by the tube as a result of air entering the tube via the openings about the circumferential surface of the tube. As a result, the movement of the fasteners through the tube is facilitated by reducing the likelihood that the fastener will bind against the sidewalls of the tube or otherwise be slowed by frictional engagement with the sidewalls of the tube.

The Official Action indicated that the Young '489 patent describes a tube in which openings are defined about its circumferential surface. In support of this proposition, the Official Action generally refers to Figures 1-3 and to the column 3, line 1-column 4, line 2. However, the Young '489 patent does not teach or suggest that the tube through which the fasteners are carried defines any such openings about its circumferential surface. Instead, the only openings defined by the tube of the Young '489 patent appear to be those openings in the opposed ends of the tube through which the fasteners are inserted and ejected and not about its circumferential surface as now recited by amended independent Claim 1. Likewise, Applicants' admitted prior art does not describe a tube defining openings about its circumferential surface such that any combination of the Young '489 patent with Applicants' admitted prior art likewise fails to teach or suggest this feature of amended independent Claim 1.

As such, independent Claim 1, as well as the claims which depend therefrom, are not taught or suggested by the Young '489 patent or by Applicants' admitted prior art, taken individually or in combination, such that the rejection of Claims 1 and 3 is therefore overcome.

New independent Claim 9 recites a fastener insertion device that includes a tube defining a passageway larger than the fastener, an air flow generator to create air flow through the tube and toward the workpiece and a swivelable attachment operably connected to the tube for permitting the tube to be alternatively placed in a first position in alignment with an opening into which the fastener is to be inserted and in a second position out of alignment with the opening into which the fastener is to be inserted. Similarly, new independent Claim 15 is directed to an apparatus for inserting a fastener into a workpiece that includes a fastener insertion device that includes a tube and an air flow generator as well as a tooling platform configured to overlie the workpiece and to define an opening in alignment with the hole defined by the workpiece and a swivelable attachment operably mounted to the tooling platform for permitting the tube to be alternatively placed in alignment with the opening defined by the tooling platform and out of alignment with the opening defined by the tooling platform. As shown in Figures 6A and 6B of the present application, one embodiment of a swivelable attachment is depicted that includes a movable arm that engages the tube and moves the tube between the alternative positions, such as a result of rotation about a hinge due to motive force provided by a motor.

Neither the Young '489 patent nor Applicants' admitted prior art nor any combination thereof teaches or suggests a swivelable attachment for alternately moving the tube between first and second positions in and out of alignment with the opening into which the fastener is to be inserted as now set forth by new independent Claim 9. Likewise, neither the Young '489 patent nor Applicants' admitted prior art nor any combination thereof teaches or suggests either a swivelable attachment or a tooling platform as set forth by new independent Claim 15.

While the dependent claims include the recitations of a respective independent claim and are therefore patentably distinct from the cited references for at least the same reasons as described above in conjunction with the respective independent claims, a number of the dependent claims include additional recitations that provide further patentable distinctions from the cited references. In this regard, new dependent Claim 4 defines the fastener insertion device to include a seating carried by an end of the tube that faces the hole defined by the workpiece. See, for example, seating 86 of Figure 5. Neither of the cited references and, therefore, no combination of the cited references, teaches or suggests a fastener insertion device having a seating as set forth by new dependent Claim 4. Additionally, new dependent Claim 5 further defines a fastener insertion device to include a swivelable attachment as described above in conjunction with new independent Claim 9. As also described above in conjunction with new independent Claim 9, neither of the cited references, and, therefore, no combination of the cited references teaches or suggests a fastener insertion device that includes a swivelable attachment as now set forth by new dependent Claim 5.

New dependent Claims 6, 10 and 16 further define the swivelable attachment to include a movable arm, while new dependent Claims 7, 11 and 17 further define the swivelable attachment to include a hinge and new dependent Claims 8, 12 and 18 further define the swivelable attachment to further include a motor. As neither of the cited references and, therefore, no combination of the cited references teaches or suggests a swivelable attachment, neither of the cited references and, therefore, no combination of the cited references teaches or suggests a swivelable attachment having a movable arm, a hinge or a motor as now set forth by new dependent Claims 6-8, 10-12 and 16-18. Further, new dependent Claims 13 and 19 further recite the tube to define openings about a circumferential surface of the tube which are not taught or suggested by the cited references or any combination thereof as described above in conjunction

with amended independent Claim 1. Finally, new dependent Claim 20 further recites an electromagnet disposed between the tooling platform and the workpiece with the electromagnet defining an opening aligned with the opening defined by the tooling platform and the hole defined by the workpiece. Neither of the cited references and, therefore, no combination of the cited references teaches or suggests an electromagnet as set forth by new dependent Claim 20.

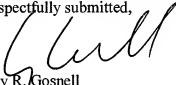
For each of the foregoing reasons, it is also submitted that a number of the new dependent claims include additional recitations that further distinguish the claimed invention from the cited references, taken either individually or in combination, and therefore provide additional bases of patentability.

CONCLUSION

In view of the amendments to the claims and the foregoing remarks, it is respectfully submitted that all of the claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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